

# EFFICIENT REAL-TIME ANALYSIS METHOD OF ERROR LOGS FOR AUTONOMOUS SYSTEMS

## ABSTRACT

An error logging and analysis system is used to detect a type of error condition, assign a  
5 numeric value corresponding to the severity of the error condition, record the time of the  
error condition, and determine the frequency between subsequent error conditions of the  
same type. A weighted error rate is generated as a function of the severity of the initial  
error condition, the frequency of subsequent error conditions, and a percentage of any  
preceding weighted error rates. These weighted error rates are compared to a  
10 predetermined threshold to determine if the error condition is statistically significant.